

differences in the frequency of radiographic OA at 5 years. Adverse events were common in both groups over the first 2 years.

Conclusions.— In young, active adults with acute ACL tears, a strategy of rehabilitation plus early ACL reconstruction was not superior to a strategy of rehabilitation plus optional delayed ACL reconstruction. The latter strategy substantially reduced the frequency of surgical reconstructions.

<http://dx.doi.org/10.1016/j.rehab.2012.07.142>

CO08-002-e

Clinical gait analysis after knee ligamentoplasty with Knee KG system

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Keywords: Cruciate anterior ligament reconstruction; Knee; Gait analysis; KNEE KG

Introduction.— Injuries of the anterior cruciate ligament are the most frequent of the locomotor pathologies in athletic population. The main treatment is surgical ligamentoplasty. Follow up and rehabilitation after ligamentoplasty are a major stake.

Patients and methods.— We carried out a preliminary study in order to assess the interest of the use of the new KNEE KG system by EMOVI for knee kinematics parameters assessment in clinical practice after ligamentoplasty. Gait kinematics data of 18 patients 3 weeks to 18 month after a reconstruction of the cruciate anterior ligament were compared to a control group of 18 subjects.

Results.— The use of the Knee KG system allowed us to collect and analyze kinematics data of the knee during gait: flexing-extension, abduction-adduction and internal-external rotation. The implementation of the device and the collect of the data needed 30 minutes. We could bring to light three groups of ligament reconstruction patients: a group of subjects with a decrease in joint amplitudes during gait, a group with unchanged joint amplitudes and a group with non explained data. We found out a variability of the data in patients between the sixth and the 18th month.

Discussion.— The Knee KG system using appeared quite simple and fast. This new system seems quite interesting in clinical practice in the follow up of the patients between the sixth and the 18th month after a reconstruction of the cruciate anterior ligament: it could allow the evaluation of gait, search for correlation between other parameters of the knee such as muscular strength in isokinetic analysis, instability in posturography, laxity and rehabilitation optimization.

<http://dx.doi.org/10.1016/j.rehab.2012.07.143>

CO08-003-e

Incidence of thromboembolic complications after hip and knee arthroplasty: Interest of systematic post-operative Doppler exploration

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Keywords: Hip arthroplasty; Knee arthroplasty; Thromboembolic complications; Doppler ultrasound

Introduction.— An important rate of thromboembolic complications has been reported in literature after hip or knee arthroplasty. They can be responsible of a

significant effect on prognosis for survival, rehabilitation and quality of live. Preventive measures, research and treatment constitute important stakes after arthroplasty.

Patients and methods.— We carried out a retrospective study about 174 patients admitted in Rehabilitation department of HIA Desgenettes between 2008/01/01 and 2011/07/01. Every patient has prophylactic treatment like enoxaparine or rivaroxaban. A Doppler ultrasound was done in a systematic manner so as to bring deep vein thrombosis in lower limbs.

Results.— Among the 174 patients of the study, 58 had a hip arthroplasty and 116 a knee arthroplasty. The systematic Doppler ultrasound of the lower limbs brought to light 17 deep vein thrombosis and a pulmonary embolism in six men and 11 women, 72.5 year middle-aged. Two of them had knee arthroplasty. Fifteen patients among 17 were asymptomatic.

Discussion.— The main objective was to evaluate the interest of systematic Doppler ultrasound exploration in patients after knee or hip arthroplasty. Despite the prophylactic anticoagulation, thromboembolic complications have been brought to light in 17 patients, which represented 9.77%. Majority of patients were asymptomatic. Consequently, it could be interesting to search deep vein thrombosis in a systematic manner in patients after knee or hip arthroplasty.

<http://dx.doi.org/10.1016/j.rehab.2012.07.144>

CO08-004-e

Evaluation of clinical maneuvers in piriformis syndrome

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Objective.— The piriformis muscle syndrome (PMS) remains a controversial diagnosis. Indeed it is not found abnormalities paraclinical sensitive and specific enough to authenticate it. Its diagnosis is suspected in the interrogation confirmed by clinical maneuvers often extended to reproduce the buttock and sciatic irradiation.

Method.— The nine major clinical maneuvers for diagnosing piriformis syndrome from publications or anatomical-functional reflections were evaluated in 100 subjects with piriformis syndrome, 30 subjects suffering from sciatica by conflict herniation and 30 control subjects. All patients underwent clinical assessment (the sequence of passage of nine maneuvers were randomly distributed, time of onset of characteristic buttock pain and sciatica irradiation were recorded in seconds, the maneuvers being extended 60 seconds maximum) and paraclinical (CT or MRI lumbar MRI of pelvis and lower limb electromyography)

Results.— A higher discriminating character is demonstrated for six of nine maneuvers (DMS sensitized Freiberg maneuver, bending test adduction internal rotation in the supine position, TGCL, Beatty maneuver, Lasague awareness internally rotated). However, two of them (DMS sensitized and sensitized Lasague in rotation), have a lower specificity, even if they are educated in internal rotation and sciatica that irradiation is qualified by a delayed time to onset from the buttock, which is usually not the case in the sciatic herniation conflict. The last three maneuvers (FAIR test maneuver, Pace and Nagle, and test in the prone position) have a lower sensitivity and time of onset of fessalgies and sciatica are longer.

Conclusion.— This work underlines the interest to favor certain maneuvers (Freiberg maneuver, bending test adduction internal rotation in the supine position, Beatty maneuver already known and maneuver TGCL reported by our team), by extending several tens of seconds to reproduce the characteristic pain symptoms of piriformis syndrome. It also highlights the importance of the patient interview, including the notion of triggering pain in prolonged sitting, taken as a contributory factor.

<http://dx.doi.org/10.1016/j.rehab.2012.07.145>